

**WHAT IS CLAIMED IS:**

1. An organism cell auto-handling apparatus comprising:
  - a platform for holding thereon at least one organism cell sample;
  - 5 an organelle observation microscope unit for identifying coordinates of a specific organelle of the organism cell sample for producing a corresponding coordinate data according to the coordinates of the specific organelle;
  - a piping device having a micro needle for drawing/injecting said organelle of the organism cell sample; and
  - 10 a system controller for receiving the coordinate data from said organelle observation microscope unit for controlling relative movement between said platform and said piping device according to the received coordinate data for enabling said micro needle to touch the specific organelle of the organism cell sample.
- 15 2. The organism cell auto-handling apparatus as claimed in claim 1, wherein said piping device means is fixed in position, and said platform is controllable by said system controller to make at least 2-dimensional motion.
- 20 3. The organism cell auto-handling apparatus as claimed in claim 1, wherein said platform is fixed in position, and said piping device is controllable by said system controller to make at least a 2-dimensional motion.
- 25 4. The organism cell auto-handling apparatus as claimed in claim 1, wherein said organelle observation microscope unit comprises a microscope, a programmable multi-wavelength light source, and an image sensor.

5. The organism cell auto-handling apparatus as claimed in claim 1, wherein said organelle observation microscope unit comprises a microscope and an image sensor.

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6. The organism cell auto-handling apparatus as claimed in claim 1, wherein said organelle observation microscope unit is a confocal microscope.

7. The organism cell auto-handling apparatus as claimed in claim 1, wherein  
10 said piping device further comprises a micro pump connected to one end of said micro needle.

8. The organism cell auto-handling apparatus as claimed in claim 1, wherein  
said micro needle has a pointed end, said pointed end having a caliber greater than the  
15 cell organelle to be drawn/injected.

9. An organism cell auto-handling method comprising the steps of:  
(a) putting at least one organism cell sample on a platform;  
(b) using an organelle observation microscope unit to position a specific  
20 organelle of said organism cell sample and produce a corresponding coordinate data to  
a system controller; and

(c) touching the specific organelle with a micro needle of a piping device that  
is controlled by the system controller according to the corresponding coordinate data  
for enabling said piping device to process an organelle draw/injection action.

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